

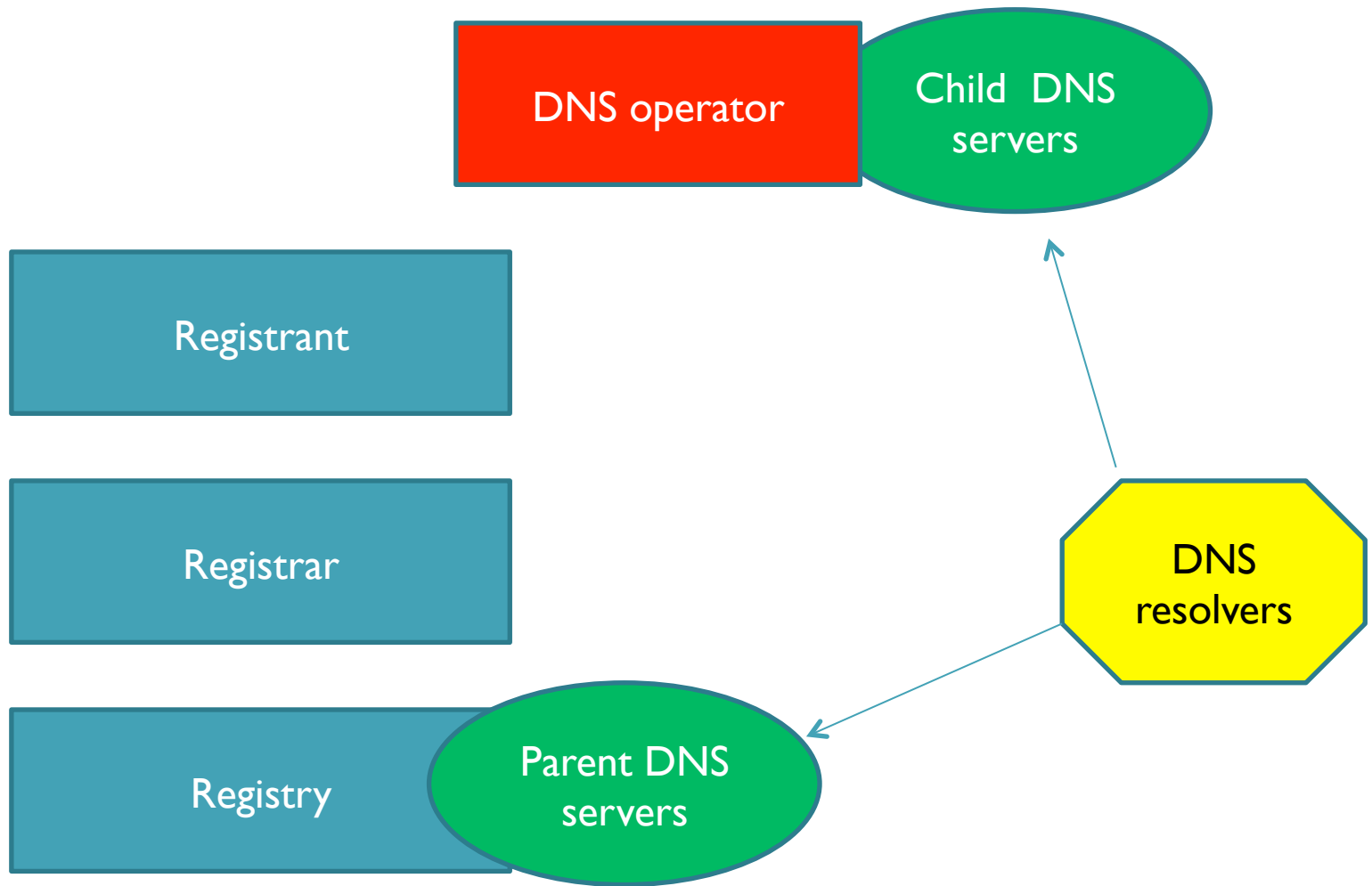
# Improving DNS contents in the RRR world

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# DNS view of the RRR world



# Relationship combinations: DNS information flow

- Registrant operates DNS
  - Uses registration interface to change DNS information.
- Registrar operates DNS
  - Registrar updates Registry directly
- External party operates DNS
  - DNS operator asks registrant to make changes
    - (DNS operator never has access to registrant's account )

# Current Situation: Observed problems

- External DNS operator has hard time to change DNS records (NS and DS) in registry.
- Technical Consequences:
  - Moving name servers is hard
    - Name server list goes partially stale
    - Each name server may have many names
  - DNSSEC Key change fails

# Contacts vs Roles vs Accounts

- ICANN registration requires 3 contacts, administrative, technical, billing
- Commonly for each registration there is one account at registration → anyone with access to account can do everything, update, pay, transfer etc.

# Administrative Solution: Sub accounts

- The ability to delegate roles to other accounts
  - DNS operator is technical → update DNS
  - Billing is gets bills → can pay bills
  - Administrative can perform all operations,
    - only one able to do **transfer**

# Technical Alternative:

## Registrar automates upload of DNS information

- With DNSSEC the contents of NS and DNSKEY sets can be authenticated and used for updated registry information
  - NS + RRSIG(NS) → NS in registry
  - DNSKEY + RRSIG(DNSKEY) → DS in registry
    - Possible: CDS + RRSIG(DNSKEY) → DS in registry
- **Registrars** can ***either*** perform this on schedule or when **Registrant or DNS Operator** requests via automated registration interface



# Thank you